

# A New Species of Amphipod from Lower California (Genus *Eriopisa*)<sup>1</sup>

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AMONG RECENT COLLECTIONS of amphipods made by Dr. John S. Garth along the coast of Lower California, from the research vessel "Velero IV," were those reported upon here, a new species belonging to the genus *Eriopisa* Stebbing (1890: 193). I am pleased to name this amphipod for Dr. Garth, in whose laboratory the work was carried out, and whose counsel for several years has been greatly appreciated. I am also indebted to Captain Allan Hancock, Director, and Dr. James W. Buchanan, Director of Research, Allan Hancock Foundation, for support and equipment.

## *Eriopisa garthi* new species

Figs. 1, 2

DESCRIPTION OF MALE.—Head nearly as long as first 2 body segments, lateral lobes strongly produced, obtuse. Eyes not visible.

Antenna 1 about as long as head and peraeon combined, articles 1 and 2 of peduncle subequal in length, article 3 about half as long as article 2. Flagellum slender, 1.5 times as long as peduncle, with as many as 16 articles. Accessory flagellum with 2 articles, longer than first article of primary flagellum.

Antenna 2 reaching slightly beyond end of peduncle of antenna 1, articles 4 and 5 equal in length, flagellum slightly longer than article 5 of peduncle.

*Mandible:* Molar conical, primary plate with 4–5 teeth, accessory plate with 4 teeth,

spine row with 5 simple spines. Palp article 3 two thirds as long as article 2.

*Lower lip:* Inner and outer lobes well developed, apices rounded, mandibular lobes short.

*Maxilla 1:* Inner plate with 3 long setae and 2 small, medial setae, outer plate with 9 spines; apex of palp article 2 with an acute tooth, 3 spines and 2 setae.

*Maxilla 2:* Inner plate broader than outer, inner edge lined with several strong setae.

*Maxilliped:* Inner plate subrectangular, apex truncate, but with rough indentations, armed with 3 spines and several setae; outer plate reaching to middle of palp article 2, strongly armed with setae. Palp article 4 slender, conical, curved, about as long as article 3.

*Gnathopod 1:* Coxa not triangular, infero-anterior edge rounded; article 2 rather stout; article 4 large, posterior surface echinulate; article 5 slightly longer than 4, attached along the anterior surface of the latter; article 6 longer than 5, palm oblique, convex, lined with setules, defined by a spine; article 7 slender, curved, longer than palm.

*Gnathopod 2:* Articles 4 and 5 short; article 5 produced into a posterior setose lobe; article 6 very large, elongate, palm with a large, subacute medial tooth bearing spinules, posterior to which the palm is hemispherically excavated; the posterior wing of the excavation bearing 3 spines; article 7 strong, curved, fitting palm.

Peraeopod 1 slightly larger than 2, slender, articles 4 and 5 equal in length, shorter than article 6; article 7 slightly curved.

Peraeopod 3 shorter than 1, coxa produced

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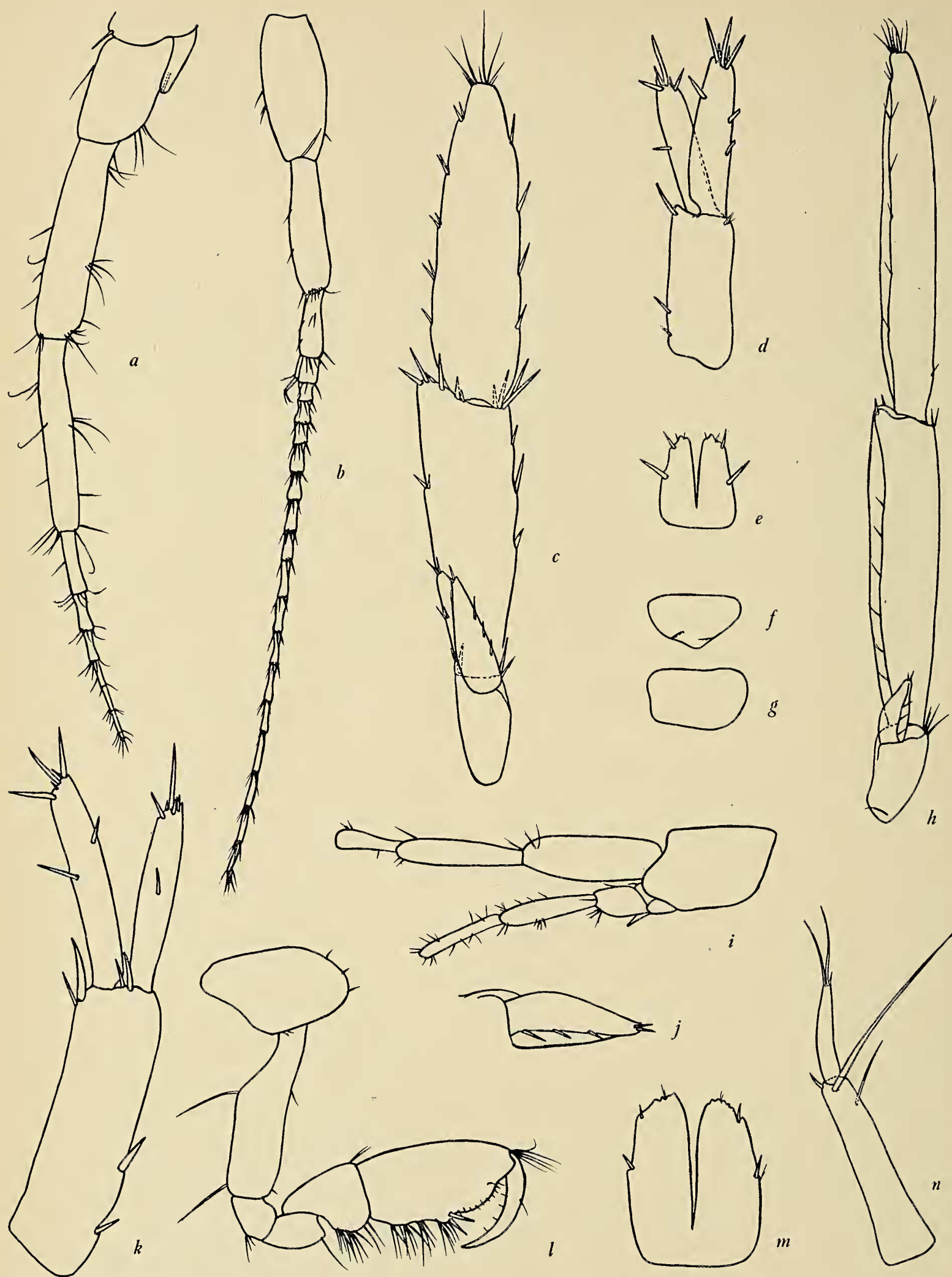


FIG. 1. *Eriopisa garthi* n. sp.: *a*, Antenna 2; *b*, antenna 1; *d*, uropod 2; *f*, coxa 6; *g*, coxa 4; *h*, uropod 3; *i*, head; *j*, uropod 3, inner ramus; *k*, uropod 1; *m*, telson; *n*, accessory flagellum (male, paratype, 8.5 mm.); *c*, uropod 3; *e*, telson; *l*, gnathopod 1 (female, allotype, 8 mm.).

downward anteriorly into a rounded lobe, article 2 not broadly expanded, posterodistal corner produced downward into a rounded lobe; articles 5 and 6 equal in length, longer than 4.

Peraeopods 4 and 5 successively longer, peraeopod 4 intermediate in size between 3 and 5, peraeopod 5 greatly elongated; coxae triangular in shape, not lobed; posterodistal corner of article 2 produced downward into a subacute lobe, articles 4–6 successively longer; article 4 about as long as 2.

*Pleopods*: outer ramus shorter than inner, both elongated, longer than peduncle, each with 9 articles.

Uropods 1 and 2 short, not reaching much beyond last urosome segment. Uropod 1 reaching to end of uropod 2, inner ramus nearly as long as peduncle, outer ramus shorter than inner.

*Uropod 2*: Inner ramus subequal in length to peduncle, longer than outer ramus.

Uropod 3 greatly elongated, nearly one half the length of the body. Peduncle very short; inner ramus shorter than peduncle, conical, tipped with 2 spinules; outer ramus very long, more than 5 times as long as peduncle, composed of 2 flattened articles slightly curved upward at the edges, the distal article slightly longer than the proximal one, rounded distally and apically setose.

Telson split, lobes broad, apices oblique, serrate, each lobe armed with 2 spines and a setule.

Body very slender, none of the segments dorsally carinate or toothed.

*Pleon segment 3*: Lower posterior corner produced into an acute tooth.

**FEMALE**.—Differing from the male by the small second gnathopods, article 6 of which resembles gnathopod 1; and by the shorter and broader third uropods on which the inner ramus is about one half the length of the proximal article of the outer ramus. Apices of telson more acute (possibly due to the juvenility of the females available, as young males show this same characteristic).

**TYPES**.—Holotype, Allan Hancock Foundation No. 513, male, 7.2 mm.; paratype, 8.5 mm. (figured); allotype, female, 5 mm. (figured).

**TYPE LOCALITY**.—"Velero" Station 2066–51, Punta Eugenia, Lower California, Mexico, November 1, 1951, intertidal, under rock on gravel.

**MATERIAL EXAMINED**.—The types and 12 other specimens from the type locality.

**REMARKS**.—Four species belonging to the genus *Eriopisa* were previously known. These are *Eriopisa elongata* (Bruzellius, 1859), *E. philippensis* (Chilton, 1920), *E. chilkinsis* (Chilton, 1921), and *E. seurati* Gauthier (1936). They are characterized generally by the following characters: (1) Inner edge of inner plate on maxilla 1 strongly setose; (2) setae present on inner edge of inner plate of maxilla 2; (3) lower anterior edge of coxa 1 not greatly prolonged; (4) mandibular palp with setae well developed on article 3 and several on article 2, palp well developed structurally; (5) gnathopod 2 much larger than 1. The new species treated here agrees in concept with items 2–5 but not with item 1, as the present material has only 3 well-developed setae on the inner edge of the inner plate of maxilla 1, a characteristic of the closely related genus *Eriopisella* Chevreux (1920). The latter was separated from *Eriopisa* by the paucity of setae on the inner plates of the first two maxillae.

The known species of the genus *Eriopisella* are *E. pusilla* Chevreux (1920), *E. capensis* (K. H. Barnard, 1916), and *E. sechellensis* (Chevreux, 1901). The present species is separated from these by the presence of setae on the inner edge of the inner plate of maxilla 2, by the rounded first coxal plate, by the armature and stoutness of the mandibular palp, by the large size of the distal article of the outer ramus of uropod 3, and by the diversity in size of the first 2 pairs of gnathopods.

Although transgressing the defining characters of the genera *Eriopisa* and *Eriopisella*



FIG. 2. *Eriopisa garthi* n. sp.: *a*, Gnathopod 2; *b*, pleon, left side; *c*, uropod 3, apex; *d*, gnathopod 1; *e*, maxilliped; *f*, lower lip; *g*, maxilla 2; *h*, peraeopod 5; *i*, mandible; *j*, maxilla 1; *k*, peraeopod 3; *l*, peraeopod 1 (male, paratype, 8 mm.).

as stated by Chevreux (1920), with regard to the lack of setae on maxilla 1, the new species fits into the genus *Eriopisa* on the basis of characters 2–5 as stated above. It differs from the known species in the genus not only by the character of maxilla 1, inner plate, but also by the character of article 6 of gnathopod 2, wherein the palm is deeply excavated.

This is the first record of the genus *Eriopisa* on the Pacific Coast of North America.

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